



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,123	06/23/2003	Jim Smith Hogan	1949-00701	9107

23505 7590 06/07/2005

CONLEY ROSE, P.C.
P. O. BOX 3267
HOUSTON, TX 77253-3267

EXAMINER

BHAT, NINA NMN

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,123

Applicant(s)

HOGAN, JIM SMITH

Examiner

N. Bhat

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-3-2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The examiner acknowledges that this case is a Divisional Application of 10/287,387, filed November 4, 2002 now U.S. Patent 6,638,396 and the preliminary amendment of June 23, 2003.
2. Claim 13-42 are pending in the application. Action on the merits of claims 13-42 follows:
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
4. Claims 13-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Schlienger.

Schlienger teaches providing an apparatus for processing waste product comprising a rotatable drum having inlet and outlet end, an enclosure disposed about the drum which includes an enclosure outlet opening for circulating hot gas over the outside of the drum to heat the material in the drum and a plasma reactor connected to the drum and a recirculation blower connected to the drum. The apparatus includes means to remove solids and to treat gases generated within the plasma reactor. The apparatus further includes means for cooling and/or removing connected to the reactor.

Specifically, the apparatus taught by Schlienger includes a reactor (10) which includes a hollow closed containment vessel (912) having a top wall (14), a cylindrical side wall (916) and bottom wall (18). A rotary drum (930) is mounted within vessel (12) for

Art Unit: 1764

rotation about a generally vertical axis, which is the central axis of sidewall (16) of vessel (12). A rotary seal (56) surrounds spindle 46 and seals the interior space (24) from the atmosphere. A plasma torch (72) is pivotally mounted on the top wall of vessel (12). The ball and socket pivoting means include a seal so that there is no communication of space (24) with the atmosphere surrounding vessel (12). By regulating the speed of rotation of the drum, liquids or solids will slide downwardly into to region of high heat where incineration, pyrolysis reactions or melting of waste material take place. The products of combustion in reactor 910 are directed to cyclone solids separator (166) having a gas delivery pipe coupled to the inlet of a gas scrubber. The gas fraction from the scrubber is directed to a filter dryer which is coupled to a vent and another branch can be coupled by way of a recycle valve to recycle tank through blower (178 and 180). Schlienger further teaches that the reactor can be cooled using a water spray, water jacket cooling or gas cooling applied to the outer surfaces of the drum as required. Schlienger teaches that subsequent plasma torches or after burner can be used to further treat molten materials such as slags. Schlienger fully anticipates applicant's claims as presently drafted.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1764

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlienger USP 5, 136,137.

Schlienger teaches the invention substantially as claimed for reasons delineated above.

However, Schlienger does not teach specifically teach a second plasma reactor for treating drum gasses from the first drum.

Schlienger teaches that more than one plasma torches can be employed in the reactor as claimed to further treat solids and teaches addition heat is required to prevent slag from freezing up in the central hole and also to act as an after burner to treat gaseous products and uses this second plasma torch to provide the heat and also to ensure that all of the waste material is pyrolyzed or permitted to be completely combusted. It would have been obvious from Schlienger to provide a second plasma reactor to further treat the waste gas from the first plasma reactor because applicant is merely duplicating parts for its known multiplied effect, Schlienger teaches why one of ordinary skill in the art would provide a second plasma torch which is to ensure excess heat so that the pyrolysis reactions are completed thereby providing a more efficient

Art Unit: 1764

apparatus. It is maintained that Schlienger fairly teaches and suggests applicant's apparatus as claimed and renders the invention as a whole obvious to one having ordinary skill in the art at the time the invention was made.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsangaris et al teach a waste process system including multiple plasma generators. Kong et al. '855 and '950 teach method and system for treating vapors for fuels using plasma reforming and partial oxidation of hydrocarbon fuel vapor to produce synthesis gas. Schlienger '494 teach an apparatus and method using plasma torch incineration technology. Pate et al. teach an apparatus for recovering hydrocarbons from contaminated soils using a plasma torch and rotating drum. Hogan '836, '026 and '060 teaches a method and apparatus for retorting material. Hogan teaches a microwave rotating apparatus for continuously processing material. Hogan '361 teach an apparatus and method for the separation and chemical and physical alteration of organic solid material which are placed in a sealed rotating drum and exposed to hot products of combustion produced by a flame within the drum. Foret teach a plasma whirl reactor for treating waste materials. Feizollahi '911 and '236 teaches a multi-zone waste processing reactor system.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

Art Unit: 1764

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



N. Bhat
Primary Examiner
Art Unit 1764